

CLAIMS:

1. A method of generating a maximum entropy speech model for a speech recognition system in which:

- by evaluating a training corpus, first probability values $p_{ind}(w | h)$ are formed for N-grams with $N \geq 0$;
- 5 - an estimate of second probability values $p_{\lambda}(w | h)$, which represent speech model values of the maximum entropy speech model, is made in dependence on the first probability values;
- boundary values m_{α} are determined which correspond to the equation

$$m_{\alpha} = \sum_{(h,w)} p_{ind}(w | h) \cdot N(h) \cdot f_{\alpha}(h, w)$$

where $N(h)$ is the rate of occurrence of the respective history h in the training corpus and $f_{\alpha}(h, w)$ is a filter function which has a value different from zero for specific N-grams predefined a priori and featured by the index α , and otherwise has the zero value;

- 15 - an iteration of speech model values of the maximum entropy speech model is continued to be made until values $m_{\alpha}^{(n)}$ determined in the n^{th} iteration step according to the formula

$$m_{\alpha}^{(n)} = \sum_{(h,w)} p_{\lambda}^{(n)}(w | h) \cdot N(h) \cdot f_{\alpha}(h, w)$$

20 sufficiently accurately approach the boundary values m_{α} according to a predefinable convergence criterion.

2. A method as claimed in claim 1, characterized in that for the iteration of the speech model values of the maximum entropy speech model, the GIS algorithm is used.
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3. A method as claimed in claim 1 or 2, characterized in that a backing-off speech model is provided for producing the first probability values.
4. A method as claimed in claim 1, characterized in that for calculating the
5 boundary values m_α for various sub-groups, which summarize groups of a specific α , various first probability values $p_{\text{ind}}(w | h)$ are used.
5. A speech recognition system with a speech model generated as claimed in one of the claims 1 to 4.